

STRESS-BEATING **Quilments**

stresses. He said patients must be in a relatively calm state and when treating nervous disorders, organically healthy. Dr. Liventz told me that after several electro-sleep treatments some patients often are able to fall into the same deep, restful sleep without the current being turned on.

At this, Dr. Obukov pointed out I proved Pavlov's conditioned-reflex theories. In the Soviet Union all nervous disorders are treated on the basis of Pavlov's work. In the United States, Sigmund Freud's work is usually basic.

Obukov and Liventz have had noteworthy success using the electro-sleep to treat hypertension (high blood pressure). His machine on a third of the beds are devoted to treating hypertension. One sleep machine can administer to four patients simultaneously. Six were used in all.

Hop for hypertensives

They recorded the results of electro-sleep on 1300 hypertensives. With labile hypertensives, patients whose blood pressure varies from normal to high, the electro-sleep was an undeniably 100 per cent effective. In stable diastolic hypertensives, patients whose blood pressure remains consistently high (too much peripheral resistance to the blood vessels in the kidneys and extremities), the machine was said to be 70 to 80 per cent effective. It did not work at all with organically ill hypertensives.

I discussed with Dr. Liventz the electro-sleep's effect on menopause hypertensives, a 25-year-old male. The patient's blood pressure registered 170/110. Normal blood pressure for a man that age is about 135-110/90-70. After four months of electro-sleep treatment this reading improved to 140/95.

Electro-sleep treatment to hypertensives is given six days a week for 30 minutes. After two weeks treatment is increased to 40 minutes. Many hypertensives are treated for seasonal periods for rheumatic and other ailments, to prevent tetanus. Then treatment is every third or fourth day.

World-wide electro-sleep use

The Soviet doctors told me they are also experimenting with the electro-sleep to treat pneumonia, tuberculosis, whooping cough and even cholera. Russian medical journals show they also are trying to treat postmenstrual, premenstrual, toxemia, eclampsia, tuberculosis and toxemia of pregnancy.

Personally, I think the Soviets are overenthusiastic. But some of the electro-sleep spreading because manufacturers have a transatlantic model which claims the Russians "can't be wrong." Physicians in France, Italy, Czechoslovakia and Germany are experimenting with the electro-sleep.

As physicians learn about how the machine works the mind and the body, many more cases and further investigations for it will be reported. It is popular in the U.S. and all over the world because of its



So soft you forget
them so safe that
you can...

Rems

**SCIENTISTS HAVE LONG DEBATED
THE NECESSITY OF EIGHT HOURS OF
SLEEP IN EVERY TWENTY-FOUR**

THERE ARE CASES OUT OF DOOR of men living natural healthy active lives on one hour's sleep in every twenty-four hours. There is a queer model electric clock with in it the mechanism which induces "deep sleep" for two hours - thus leaving a man free to work the other twenty-two. If the world of the not-too-distant future therefore may well entertain the thought of going without sleep altogether.

In **THE UNUSUAL**, television setaboom out-thingsed endings. "Be-Wake adds thirty years to your life!"

No one wants to trade this happy prospect, even though everybody is working only four hours a day - four days a week; the populace joyfully accepts yet another eight hours a day of waking tedium and embarks on a merry-go-round of fun working.

Except for Peter Gregory, who stubbornly refuses to believe the human body can take it.

But in the end what of pleasure? "A sleeper" goes on like a sore thumb, and indeed quickly becomes socially unacceptable. It is not merely a matter of being a rebel. A sleeper is a peeper at every party, the can't sleep on his rest, certainly can't drop out with the current, already four hours stay and not sleeping wife.

And as Peter's personal problems become acute, so does the rising tide of public hysteria.

**Ballantine Science Fiction Novel
THE UNUSUAL
Diana and Macmillan
Ballantine Books, New York 1962**

**(First published 1961 by
Harris Books Ltd. London)**

**SCIENTISTS HAVE LONG DEBATED
NECESSITY OF EIGHT HOURS OF
SLEEP IN EVERY TWENTY-FOUR**

AS CASES of record of men living natural, healthy, lives on one hour's sleep in every twenty-four. (In Russia, a junior-model electric shock machine on the market induces "deep sleep" for two hours. Thus leave man free to work the other twenty-two.) Who would a too-distant future therefore may well offer man chance to go without sleep altogether.

IF UNSLEEP, television sets boom out the glad "Six-Wake adds thirty years to your life!" He wants to resist this happy prospect, even though he is working only four hours a day; four days a week; populace joyfully accepts yet another eight hours waking leisure and gambles on a merry go-round seeking. For Peter Gregory, who stubbornly refuses to let the human body cancel it, the void whiff of pleasure is "Sleepers" stands out as thin and indeed quickly becomes socially un-able. It is not merely a matter of being a rebel. As a spoonsist every party, he can't sleep in his cot; he certainly can't sleep up with the urgent, four hours a day demands of a loving wife. As Peter's personal problems become acute, so does the tide of public hysteria.

**A Hallentine Science Fiction Novel
The UNSLEEP
Diems and Hair Gillon
Hallentine Books, New York 1962**

**First published 1961 by
Barrie Books Ltd. London**

GREEN WARD ELECTION

John C. Lilly, M.D.

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MANAGEMENT

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“There was some doubt in our minds as to whether we were either still low crawling from the mud, or actually coming from the dung, or whether it was from the stomach. Once in a while we would smell a tiny note that seemed to be a stomach gas.”

usually failed too.

Some of my memories of rooming with this animal matter that, while watching him in the kitchen, he would sometimes find a piece of meat or a piece of vegetable in the trash can which he quite innocently would go around and eat. I was usually the first to see him do this. He would then look at me and I would usually say, "You didn't see that, did you?" and he would usually say, "No, I didn't see that." I would then say, "Well, you didn't see that, did you?" and he would usually say, "No, I didn't see that." I would then say, "Well, you didn't see that, did you?" and he would usually say, "No, I didn't see that."

[illegible]

We did not know what the trip would be like, but we

the human these areas of the brain give rise to an intense sense of well-being without any particular intellectual association, that is, the sense of well-being is not sexual, nor connected with food, hunger, thirst, etc. In so far as we can determine, many of these systems are invariable; they exert a powerful influence as long as the animal is awake and repeating the stimulus again and again does not wear out the effect.

Using this system of stimulation, technique, we obtained quite satisfactory results. A dolphin can breathe in two different ways. One, in his usual fashion, under water, and the other, by emitting air through his blowhole so that he produces air-borne sounds that we can hear. By changing back and forth between responding to him under water, or in air we could induce a particular animal to emit his sounds either underwater or in air.

There are, of course, many obstacles to a mutual understanding between dolphins and men. Consider their activities compared with ours. They have no written records and make no artifacts. They lack hands like ours and are not building anything. They have no speed of transportation, because it is built in. They can swim in twenty knots and in fifteen days cover thousands of sea miles in search for food in more tolerable water temperatures. They have no need to store food because it abounds in the sea, for the taking. They have no need for clothing or shelter. They have no need for gravity-resisting forces of the magnitude that we do. Their gravity resistance is distributed over the whole framework, rather than on the bottom of the feet or on the buttocks as in our case.

Because they do not constantly have to resist gravity as we do, they do not need to sleep as we do. As we discovered, they cannot afford deep unconsciousness as well from any reason as the human's convulsions, nor is there so much threat hard enough to produce unconsciousness will kill them. They do not seem to have the kind of automatic respiratory system that allows us to breathe while we are unconscious. Being under water seems to inhibit the dolphin's respiration completely and in order to breathe and release the

A FALL OF NOODLES

Arthur C. Clarke
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New York, New York

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New York

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When the Priority-Red signal reached Agnes Thomas Lawton, Ph.D., was fast asleep. He remained the interruption, though he needed only two hours' sleep in twenty-four when living under zero gravity. It seemed a little unfair to lose even that. Then he grasped the meaning of the message, and was fully awake. At last it looked as if he would be doing something useful for his country.

[illegible]

The hundred-centimeter telescope had been designed to look at objects billions of times farther away than the Moon, but it was admirably suited for this job. From so

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New York

[illegible]

When the PRIORITY alarm signal stretched 21 agonizing seconds, Thomas Lawson, Ph.D., was fast asleep. He presented the interruption, though, even if he needed only two hours' sleep—twenty-four when living under zero gravity, a tremendous little unfair to lose even that. Then he grasped the meaning of the message, and was fully awake. A light glowed as if she would be doing something useful here.

[illegible]

The hundred-centimeter telescope had been designed to look at objects billions of times farther away than the Moon, but it was admirably suited for this job. From an